

# 3380-101

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67137 U.S. PTO  
06/27/97

REQUEST FORM FOR FILE WRAPPER CONTINUING APPLICATION  
UNDER 37 CFR 1.62

Docket No. 35.C11174 CI  
Anticipated Classification of  
this application:  
Class 399 Subclass 276  
Prior Application:  
Examiner S. Chen  
Group Art Unit 2105

Assistant Commissioner for Patents  
**BOX FWC**  
Washington, DC 20231

Sir:

This is a request for filing a continuation application,  
under 37 CFR 1.62, of prior Application No. 08/578,343, filed on  
December 26, 1995, currently entitled DEVELOPER CARRYING MEMBER,  
DEVELOPING ASSEMBLY, IMAGE FORMING APPARATUS, AND PROCESS CARTRIDGE,  
by the following currently named inventors:

Full Name of First Joint Inventor, MASAYOSHI SHIMAMURA  
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Post Office Address c/o Canon Kabushiki Kaisha, 30-2, 3-chome,  
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Full Name of Second Joint Inventor, YASUhide GOSEKI  
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Full Name of Third Joint Inventor, KENJI FUJISHIMA  
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Full Name of Fourth Joint Inventor, MICHIKO ORIHARA  
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Citizenship Japanese  
Post Office Address c/o Canon Kabushiki Kaisha, 30-2, 3-chome,  
Shimomaruko, Ohta-ku, Tokyo, Japan;

Full Name of Fifth Joint Inventor, KAZUNORI SAIKI  
Residence Yokohama-shi, Kanagawa-ken, Japan  
Citizenship Japanese  
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Full Name of Sixth Joint Inventor, MAYOKO MARUYAMA  
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Citizenship Japanese  
Post Office Address c/o Canon Kabushiki Kaisha, 30-2, 3-chome,  
Shimomaruko, Ohta-ku, Tokyo, Japan; and

Full Name of Seventh Joint Inventor, TAKUYA TOYOOKA  
Residence Shinagawa-ku, Tokyo, Japan  
Citizenship Japanese  
Post Office Address c/o Canon Kabushiki Kaisha, 30-2, 3-chome,  
Shimomaruko, Ohta-ku, Tokyo, Japan.

The above-identified prior application, in which no payment of the issue fee, abandonment of, or termination of proceedings has occurred, is hereby expressly abandoned as of the filing date of this new application. Please use all the contents of the prior application file wrapper, including the drawings, as the basic papers for the new application.

1. ☐ Enter the Amendment After Final Rejection previously filed on \_\_\_\_\_ under 37 CFR 1.116, but unentered, in the prior application.
- 2a. ☒ A Preliminary Amendment is enclosed.
- 2b. ☐ Applicants presently intend to file additional papers in this case after receiving an official Filing Receipt. Should the Examiner take this case up for action before receiving such papers, it is respectfully requested that the Examiner contact the attorneys for Applicants at the telephone number shown below.

- 3a. The filing fee is calculated below on the basis of the claims existing in the prior application:

EXISTING CLAIMS, AS AMENDED BY 2a., ABOVE				
FOR	NUMBER FILED	NUMBER EXTRA	RATE	BASIC FEE \$385/\$770
TOTAL CLAIMS	135-20	115	x \$11 \$22	\$ 2,530.00
INDEP. CLAIMS	4-3	1	x \$40 \$80	80.00
Fee for Multiple Dependent Claims \$130/\$260				
TOTAL FILING FEE -----				\$ 3,380.00

- 3b. ☐ Verified Statement claiming small entity status is enclosed or was filed in a prior application.
- 3c. ☒ Any prior general authorization to charge an issue fee under 37 CFR 1.18 to Deposit Account No. 06-1205 is hereby revoked. The Assistant Commissioner is hereby authorized to charge any fees which may be required during the entire pendency of this application under 37 CFR 1.16 and 1.17, or to credit any overpayment, to Deposit Account No. 06-1205. A duplicate of this paper is enclosed.
- 4a. ☒ A check in the amount of \$ 3,380.00 is enclosed.
- 4b. ☐ The filing fee will be supplied later.
5. ☐ Since this application is a continuation-in-part which discloses and claims additional matter, a new oath or declaration ☐ is included ☐ will be supplied later.
6. ☒ Amend the specification by inserting before the first sentence of the specification the following sentence:  
--This application is a continuation of Application No. 08/578,343, filed December 26, 1995, now abandoned.--.

7. ☒ Priority of the following application is claimed under 35 U.S.C. 119:

<u>Country</u>	<u>Application No.</u>	<u>Filed</u>
Japan	6-337616	December 28, 1994

8. ☒ The prior application is assigned of record to:

CANON KABUSHIKI KAISHA

9. ☒ The power of attorney in the prior application is to:

Joseph M. Fitzpatrick (Registration No. 17,398), Lawrence F. Scinto (Registration No. 18,973), William J. Brunet (Registration No. 20,452), Robert L. Baechtold (Registration No. 20,860), John A. O'Brien (Registration No. 24,367), John A. Krause (Registration No. 24,613), Henry J. Renk (Registration No. 25,499), Peter Saxon (Registration No. 24,947), Anthony M. Zupcic (Registration No. 27,276), Charles P. Baker (Registration No. 26,702), Stevan J. Bosses (Registration No. 22,291), Edward E. Vassallo (Registration No. 29,117), Ronald A. Clayton (Registration No. 26,718), Lawrence A. Stahl (Registration No. 30,110), Laura A. Bauer (Registration No. 29,767), Leonard P. Diana (Registration No. 29,296), David M. Quinlan (Registration No. 26,641), Nicholas N. Kallas (Registration No. 31,530), William M. Wannisky (Registration No. 28,373), Lawrence S. Perry (Registration No. 31,865), Robert H. Fischer (Registration No. 30,051), Christopher Philip Wrist (Registration No. 32,078), Gary M. Jacobs (Registration No. 28,861), Michael K. O'Neill (Registration No. 32,622), Bruce C. Haas (Registration No. 32,734), Scott K. Reed (Registration No. 32,433), Scott D. Malpede (Registration No. 32,533), Fredrick M. Zullo (Registration No. 32,452), Richard P. Bauer (Registration No. 31,588), Warren E. Olsen (Registration No. 27,290), Abigail F. Cousins (Registration No. 29,292), Steven E. Warner (Registration No. 33,326), Thomas J. O'Connell (Registration No. 33,202), Penina Wollman (Registration No. 30,816), David L. Schaeffer (Registration No. 32,716), Jack S. Cubert (Registration No. 24,245), Mark A. Williamson (Registration No. 33,628), Jean K. Dudek (Registration No. 30,938), Raymond R. Mandra (Registration No. 34,382), Dominick A. Conde (Registration No. 33,856), Pasquale A. Razzano (Reg. No. 25,512), John W. Behringer (Registration No. 23,086), Robert C. Kline (Registration No. 17,739), Mark J. Itri (Registration No. 36,171), William C. Hwang (Registration No. 36,169), Michael P. Sandomato (Registration No. 35,345), Jack M. Arnold (Registration No. 25,823), John D. Carlin (Registration No. 37,292), Daniel S. Glueck (Registration No. 37,838), Victor J. Geraci (Registration No. 38,157), Joseph W. Ragusa (Registration No. 38,586), Brian L. Klock (Registration No. 36,570), Anne M. Maher (Registration No. 38,231), William J. Zak, Jr. (Registration No. 38,668), Thomas D. Pease (Registration No. 35,317), Bruce M. Wexler (Registration No. 35,409), and Robert S. Mayer (Registration No. 38,544).

10. ☒ Recognize as Associate Attorneys:

Errol B. Taylor (Registration No. 39,853), Matthew J. Golden (Registration No. 35,161), Mark J. Rosen (Registration No. 39,822), Sean W. O'Brien (Registration No. 37,689), Thomas M. Palisi (Registration No. 36,629), Dolores A. Moro-Grossman (Registration No. 33,972), T. Thomas Gellenthien (Registration No. 39,683), Douglas Sharrott (Registration No. 39,832), Gordon F. Sieckmann (Registration No. 28,667), and Jay H. Anderson (Registration No. 38,371).

11. ☒ Also enclosed: Letter Transmitting Corrected Formal Drawings; six (6) sheets of formal drawings.


12. ☒ Applicants' undersigned attorney may be reached in our Washington, D.C. office by telephone at (202) 347-8100. All correspondence should continue to be directed to our below-listed address.

13. ☒ Address all future communications to:

Fitzpatrick, Cella, Harper & Scinto  
277 Park Avenue  
New York, NY 10172

It is understood that secrecy under 35 U.S.C. § 122 is hereby waived to the extent that if information or access is available to any one of the applications in the file wrapper of a 37 CFR 1.62 application, be it either this application or a prior application in the same file wrapper, the Patent and Trademark Office may provide similar information or access to all the other applications in the same file wrapper.

Dated: June 27, 1997

  
\_\_\_\_\_  
Attorney for Applicants  
Reg. No. 38,668

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277 Park Avenue  
New York, New York 10172  
Facsimile: (212) 758-2982

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35.C11174 CI

PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: )  
MASAYOSHI SHIMAMURA, ET AL. ) : Examiner: S. Chen  
Appln. No.: Continuation of ) : Group Art Unit: 2105  
Appln. No. 08/578,343 )  
Filed: Concurrently herewith )  
For: DEVELOPER CARRYING ) : June 27, 1997  
MEMBER, DEVELOPING )  
ASSEMBLY, IMAGE FORMING )  
APPARATUS, AND PROCESS )  
CARTRIDGE )

Assistant Commissioner for Patents  
BOX FWC  
Washington, DC 20231

PRELIMINARY AMENDMENT

Sir:

Prior to examination on the merits, please amend  
the above-identified application, as follows:

IN THE SPECIFICATION:

Please amend the specification, as follows:

Page 40

Line 11, change "manufactured by" to --sold by  
or available from--; and

Line 12, change "Hulett" to --Hewlett--.

IN THE CLAIMS:

Please amend Claims 26, 35, and 47, as follows:

26. (Twice Amended) The developing assembly according to claim 25, further comprising a developer layer thickness control member for forming a thin [layer of the] developer layer on an outer surface of said developer carrying member.

35. (Twice Amended) The image forming apparatus according to claim 34, further comprising a developer layer thickness control member for forming a thin [layer of the] developer layer on an outer surface of said developer carrying member.

47. (Twice Amended) The process cartridge according to claim 46, further comprising a developer layer thickness control member for forming a thin [layer of the] developer layer on an outer surface of said developer carrying member.

Please add Claims 126-138, as follows:

--126. The developer carrying member according to claim 1, wherein said conductive spherical particles are produced by firing spherical resin particles having surfaces that are coated with bulk-mesophase pitch, thereby

carbonizing and/or graphitizing the spherical resin particles.

127. The developing assembly according to claim 25, wherein said conductive spherical particles are produced by firing spherical resin particles having surfaces that are coated with bulk-mesophase pitch, thereby carbonizing and/or graphitizing the spherical resin particles.

128. The developing assembly according to claim 25, further comprising means for generating a vibrating electric field at the developing zone.

129. The developing assembly according to claim 128, further comprising a power source for applying an alternating bias voltage to said developer carrying member.

130. The developing assembly according to claim 26, wherein a thickness of the developer layer formed on said outer surface of said developer carrying member is smaller than a minimum gap between an electrostatic latent image bearing member and said developer carrying member, which form the developing zone.

131. The developing assembly according to claim 26, further comprising means for generating a vibrating



electric field at the developing zone, wherein a thickness of the developer layer formed on said outer surface of said developer carrying member is smaller than a minimum gap between an electrostatic latent image bearing member and said developer carrying member, which form the developing zone.

132. The image forming apparatus according to claim 34, wherein said conductive spherical particles are produced by firing spherical resin particles having surfaces that are coated with bulk-mesophase pitch, thereby carbonizing and/or graphitizing the spherical resin particles.

133. The image forming apparatus according to claim 34, further comprising means for generating a vibrating electric field at the developing zone.

134. The image forming apparatus according to claim 133, further comprising a power source for applying an alternating bias voltage to said developer carrying member.

135. The image forming apparatus according to claim 35, wherein a thickness of the developer layer formed on said outer surface of said developer carrying member is smaller than a minimum gap between an electrostatic latent image bearing member and said developer carrying member, which form the developing zone.

136. The developing assembly according to claim 35, further comprising means for generating a vibrating electric field at the developing zone, wherein a thickness of the developer layer formed on an outer surface of said developer carrying member is smaller than a minimum gap between an electrostatic latent image bearing member and said developer carrying member, which form the developing zone.

137. The process cartridge according to claim 46, wherein said conductive spherical particles are produced by firing spherical resin particles having surfaces that are coated with bulk-mesophase pitch, thereby carbonizing and/or graphitizing the spherical resin particles.

138. The process cartridge according to claim 47, wherein a thickness of the developer layer formed on said outer surface of said developer carrying member is smaller than a minimum gap between an electrostatic latent image bearing member and said developer carrying member, which form the developing zone.--.

#### REMARKS

Claims 1-32, 34-44, 46-55, and 57-138 are pending in the application, with Claims 1, 25, 34, and 46 being independent. Claims 26, 35, and 47 have been amended, while Claims 126-138 are newly presented.

In the Notice of Allowability accompanying the Notice of Allowance mailed March 28, 1997 in the parent application of the subject application, Claims 1-32, 34-44, 46-55, and 57-125 were allowed. Of these, Claims 26, 35, and 47 have been amended to even more clearly recite salient features of Applicants' invention. Applicants respectfully submit that these amendments do not affect the allowability of these claims in any manner whatsoever.

Claims 126-138 have been added to afford Applicants an additional scope of protection. Examples of support for these additional claims may be found in the disclosure as originally filed at page 12, lines 13-19; page 13, lines 3-14; page 24, line 17, to page 25, line 10; and page 23, line 25, to page 24, line 2 of the written description. Of course, these claims are not to be limited by these examples of support for the claimed subject matter.

The Examiner will appreciate that each of the newly-presented claims depends from one of allowed independent Claims 1, 25, 34, and 46. Each of the newly-presented dependent claims is thus believed allowable at least for the reasons that its respective base claim was allowed. Moreover, each of these dependent claims recites additional features in combination with the features of its respective base claim and is believed allowable in its own right. Individual consideration of the newly-presented dependent claims is respectfully requested.

Applicants submit that the present application is in condition for allowance. Favorable consideration and an early Notice of Allowance are requested.

Applicants' undersigned attorney may be reached in our Washington, D.C. office by telephone at (202) 347-8100. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,

  
Attorney for Applicants

Registration No. 38,668

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New York, New York 10172  
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PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: )  
MASAYOSHI SHIMAMURA, ET AL. ) : Examiner: S. Chen  
Appln. No.: Continuation of ) : Group Art Unit: 2105  
Appln. No. 08/578,343 ) :  
Filed: Concurrently herewith ) :  
For: DEVELOPER CARRYING ) : June 27, 1997  
MEMBER, DEVELOPING ) :  
ASSEMBLY, IMAGE FORMING ) :  
APPARATUS, AND PROCESS ) :  
CARTRIDGE ) :

Assistant Commissioner for Patents  
BOX FWC  
Washington, DC 20231

LETTER TRANSMITTING CORRECTED FORMAL DRAWINGS

Sir:

Transmitted herewith are six (6) sheets of formal drawings (Figures 1-6) to be substituted for the corresponding drawing sheets presently on file in the above-identified application.

The new drawing sheets incorporate the changes set forth in Applicants' Request for Approval to Amend Drawings filed February 24, 1997, and approved by the Examiner in the Notice of Allowability mailed March 28, 1997 (Paper No. 11) in the parent (Application No. 08/578,343) of the present application.

Applicants' undersigned attorney may be reached in our Washington, D.C. office by telephone at (202) 347-8100. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,

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FIG. 1

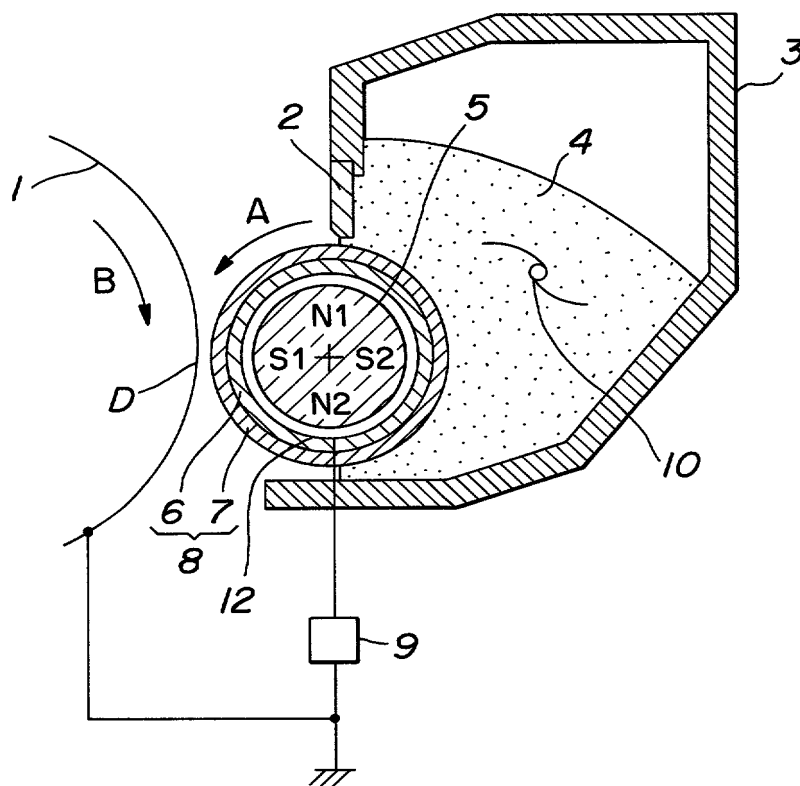
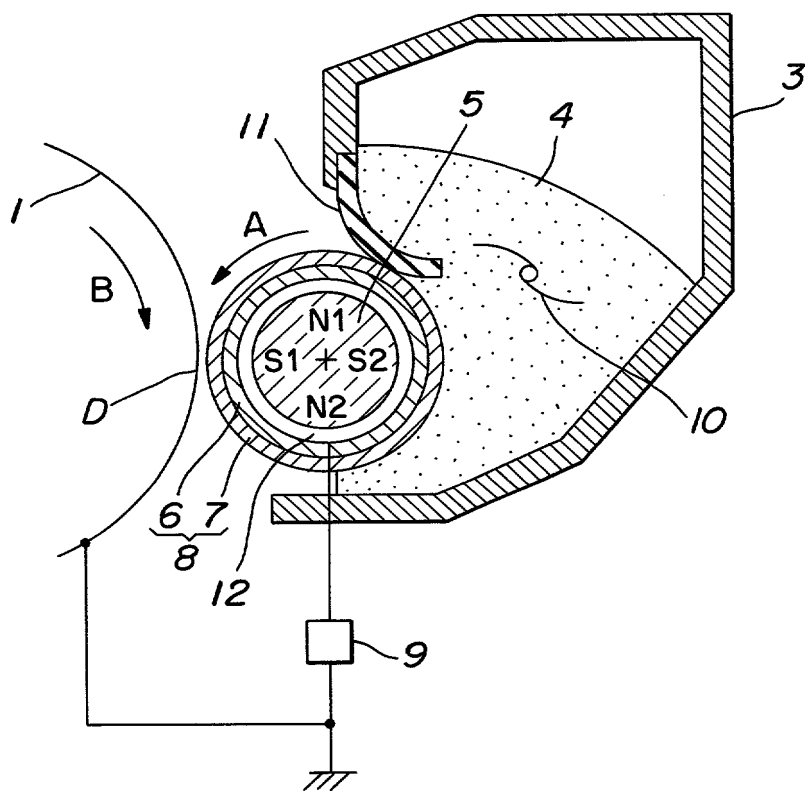






FIG. 3



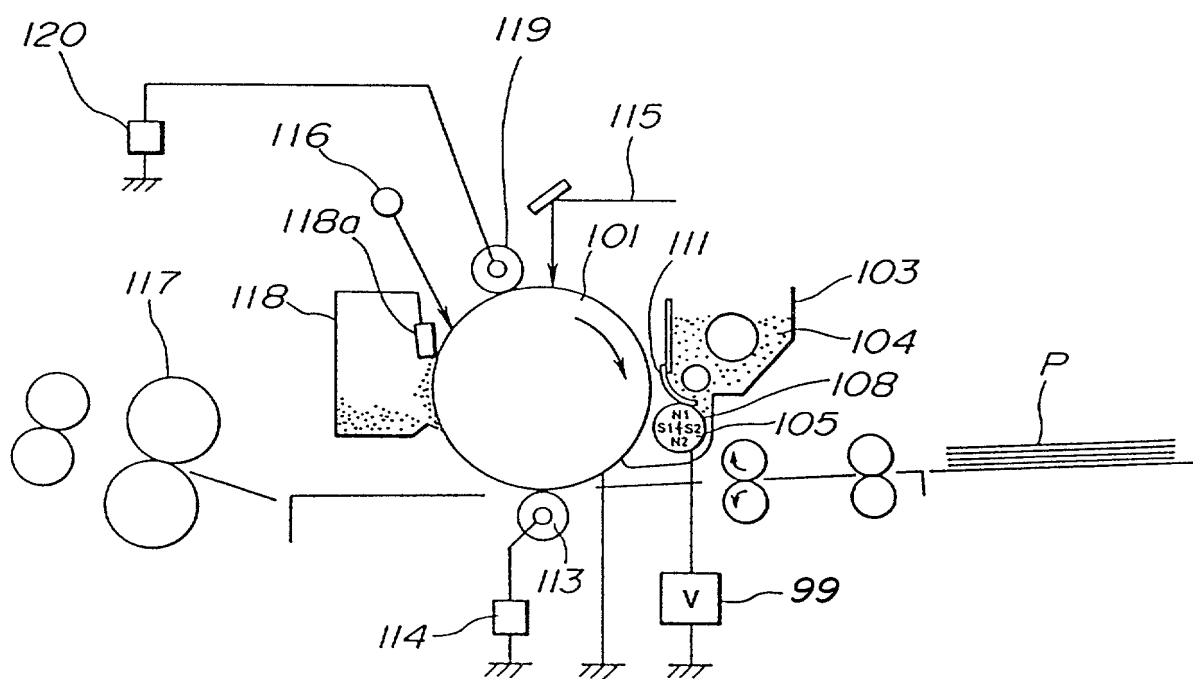
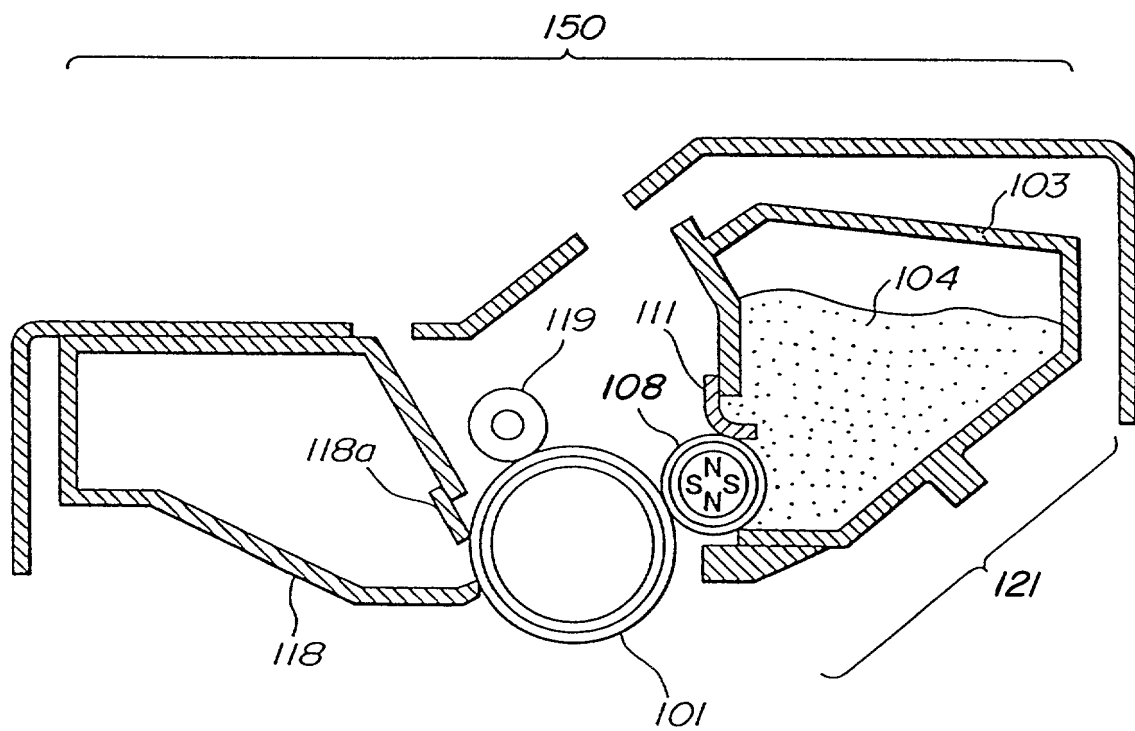
[illegible]

FIG. 5



**FIG. 6**  
PRIOR ART

